

**Name of Work : Digging of New Borewells in Shettyhalli and Ward No 16
Surrounding areas in Shettyhalli Sub Division**

Code No:-		Detailed Estimate					50.00	Lakhs
Description of Item	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
Geophysical investigation at site for sinking borewells for Providing drinking water to the habitation either through the Hand Pump MWS or P.W.S.S, by vertical electrical sounding by adopting Venner or Schlumbergers's method, including reconnaissance survey of geological formation. Geophysical investigation of existing ground water in the vicinity, its quality, quantity and acceptability of the users, indicating the location of the site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 metre in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instruments and accessories to work site, engaging technical personal and labour required etc. NOTE: 1) Additional rate on item 1&2 is allowed for drilling in over burden and fixing Casing pipes beyond 20 M (for fixing Casing pipes only) a) Above 20 M and upto 30 M - 15%, b) Above 30 M - 30% (Measurement of overburden is restricted to the depth of casing pipe fixed excluding initial depth of 20M and projection above ground level). 2) A sum of Rs. 100/- is to be deducted for Dry Borewell towards yield test. etc. complete..(BWSSB SR 2023-24, Pg No -140, I No 12.4)								
Shettyhalli-5No		5.00			5.00			
Total Qty.					5.00	Each	5288.00	26440.00
Rate as BWSSB SR 2023-24 VOL-5		5288.00 ✓						
Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern upto 20 m. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete) (Above 450m of drilling add 10% for every 50m depth) Borewell depth 0.00 to 50 Mtrs. (BWSSB SR 2023-24, Pg No -140, I No 12.1.1)								
New-Drilling								
Shettyhalli-5No	5	50.00			250.00			
Total Qty.					250.00	Mtr	370.00	92500.00
Rate as BWSSB SR 2023-24 VOL-5		370.00 ✓						
Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern upto 20 m. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete) (Above 450m of drilling add 10% for every 50m depth) Borewell depth of 50 to 100 Mtrs (BWSSB SR 2023-24, Pg No -140, I No 12.1.2)								
New-Drilling								
Shettyhalli-5No	5	50.00			250.00			
Total Qty.					250.00	Mtr	464.00	116000.00
Rate as BWSSB SR 2023-24 VOL-5		464.00 ✓						

4	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern upto 20 m. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete) (Above 450m of drilling add 10% for every 50m depth) 100.00 to 150 Mtrs. (BWSSB SR 2023-24, Pg No -140, I No 12.1.3)								
	New-Drilling								
	Shettyhalli-5No	5	50.00			250.00			
		Total Qty.				250.00	Mtr	493.00	123250.00
	Rate as BWSSB SR 2023-24 VOL-5	493.00	✓						
5	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern upto 20 m. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete) (Above 450m of drilling add 10% for every 50m depth) 150.00 to 200 Mtrs. (BWSSB SR 2023-24, Pg No -140, I No 12.1.4)								
	New-Drilling								
	Shettyhalli-5No	5	50.00			250.00			
		Total Qty.				250.00	Mtr	572.00	143000.00
	Rate as BWSSB SR 2023-24 VOL-5	572.00	✓						
5	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern upto 20 m. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete) (Above 450m of drilling add 10% for every 50m depth) 200.00 to 250 Mtrs. (BWSSB SR 2023-24, Pg No -140, I No 12.1.5)								
	New-Drilling								
	Shettyhalli-5No	5	50.00			250.00			
		Total Qty.				250.00	Mtr	671.00	167750.00
	Rate as BWSSB SR 2023-24 VOL-5	671.00	✓						
7	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern upto 20 m. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete) (Above 450m of drilling add 10% for every 50m depth) 250.00 to 300 Mtrs. (BWSSB SR 2023-24, Pg No -140, I No 12.1.6)								
	New-Drilling					250.00			
	Shettyhalli-5No	5	50.00			250.00	Mtr	740.00	185000.00
		Total Qty.				250.00			
	Rate as BWSSB SR 2023-24 VOL-5	740.00	✓						

8	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern upto 20 m. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete) (Above 450m of drilling add 10% for every 50m depth) 300.00 to 350 Mtrs. (BWSSB SR 2023-24, Pg No -140, I No 12.1.7)							
	New-Drilling							
	Shettyhalli-5No	5	25.00		125.00			
		Total Qty.			125.00	Mtr	868.00	108500.00
	Rate as BWSSB SR 2023-24 VOL-5	868.00						
9	Providing PVC ringtite pipes conforming to IS 4985:2000 with latest amendments and conveying to worksite, rolling and lowering into trenches, laying true to line and level and perfect linking at joints, testing and commissioning, including loading unloading at both destinations and cuts of pipes wherever necessary including jointing of PVC pipes and specials (excluding cost of specials) with jointing of approved type, with all labour with all lead & lift including encasing the pipe around to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation etc. complete and giving necessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) etc. complete For:. PVC pipes 200mm dia., 6 kg/sqcm & class 3 (BWSSB SR 2023-24, Pg No -113, I No 10.1.10)							
	New-Drilling							
	Shettyhalli-5No	5	30.00		150.00			
		Total Qty.			150.00	Mtr	1115.00	167250.00
	Rate as BWSSB SR 2023-24 VOL-5	1115.00						
0	Supply of ISI mark 175mm nominal bore, plain and steel casing pipe grade of steel Fe 410 of wall thickness conforming to IS 4270-2001 and latest ammendments, electrical resistance welded steel tubes, material and conforming to IS 1387-1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5-7m both ends. threaded conforming to IS 554-1985 one end fixed with socket conforming to IS 4270-2001 and the other end with screwed pipes all shall be responsibly free from defects. The tubes shall be responsible straight end should be with ISI marking weighing 25.10kg/m. prices include Collar-Medium duty. (BWSSB SR 2023-24, Pg No -143, I No 12.32)							
	New-Drilling				150.00			
	Shettyhalli-5No	5	30.00		150.00	Mtr	1933.00	289950.00
		Total Qty.			150.00			
	Rate as BWSSB SR 2023-24 VOL-5	1933.00						
11	Providing and fixing MS casing collars as per IS 1239 (part-II) 1982 with all latest amendments if any for any dia. The thickness of plate used for covering one end shall be 3mm (minimum). The dimensions of caps and colars shall be strictly as per IS 1239 (Part-II) 1982 with all amendments (BWSSB SR 2023-24, Pg No -143, I No 12.33)							
	New-Drilling				35.00			
	Shettyhalli-5No	5	7.00		35.00	Each	150.00	5250.00
		Total Qty.			35.00			
	Rate as BWSSB SR 2023-24 VOL-5	150.00						

12	Providing and laying at site of work MS casing caps as per IS 1239 (part- II) 1982 one end shall be 3mm (minimum). The thickness of plate used for covering as per IS 1239 (Part-II) 1982 with all amendments including cost of material and labour charges for fixing, if any etc. complete with all lead and lifts and as directed by Engineer-in-chagre (BWSSB SR 2023-24, Pg No -143, I No 12.34)							
	New-Drilling							
	Shettyhalli-5No	5	1.00			5.00		
		Total Qty.				5.00	Each	164.00
	Rate as BWSSB SR 2023-24 VOL-5	164.00						820.00
3	Providing, supplying to work site, Submersible Pump Set of 150mm dia suitable for bore well and confirming to IS 8034-2000; 3Phase, SS Bowl & Impeller with Low volt Motor as per specifications, as per necessary ammendments and instructions of engineer incharge of work. Submersible Pump Sets : 15.00 HP - 120 LPM @ 253 m = 23 STG Outlet Dia - (BWSSB SR 2023-24, Pg No -153, I No 13.18.6)							
	Submersible Pump Sets	5				5.00		
		Total Qty.				5.00	No.s	69344.00
	Rate as BWSSB SR 2023-24 VOL-5	69344.00						346720.00
	Labour charges for Erection, Electrification and commissioning of Pump sets, including aligning and balancing of all items including supply and erection of two pair of upporting clamps, bore well caps, cable clips and water tight gland cable protectors, bolts, nuts, valve and gauges, tools and equipments etc., involved in the job as per specifications, with necessary tests as per specifications, with testing of as per instructions of engineer incharge of work. (BWSSB SR 2023-24, Pg No -156, I No 13.32)							
	Shettyhalli-5No	5	1			5.00		
		Total Qty.				5.00	job	6500.00
	Rate as BWSSB SR 2023-24 VOL-5	6500.00						32500.00
	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to IS 13:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100 Volts as per IS-694:1990. 3C x 6 sqmm (PWD Ele SR 2023-24, Pg No-7 I No -2.6.4)							
	Shettyhalli-5No	5	2	325.00		3250.00		
		Total Qty.				3250.00	Rmt	245.00
	Rate as PWD Ele SR 2023-24	245.00						796250
	Supply and delivery of galvanized mild steel tubes of 6mtr standard length heavy duty (C Class) as per IS 1239 (Part-I) 1990 with latest amendments with ISI Mark (one end fitted with Heavy Duty collar and other end fitted with protective cover). G.I. Pipe 50mm 'C' Class (BWSSB SR 2023-24, Pg No -156, I No 13.27)							
	Each length 6mts							
	Shettyhalli-5No	5	52.00			260.00		
		Total Qty.				260.00	Each	3050.00
	Rate as BWSSB SR 2023-24	3050.00						793000.00
	Supply and delivery at site of brand new best make non-return valve as per IS 778/1984 with ISI Mark and as per its latest amendments 50mm (BWSSB SR 2023-24, Pg No -154, I No 13.25.1)							
		5	1			5.00		
		Total Qty.				5.00	No	1250.00
	Rate as BWSSB SR 2023-24	1250.00						6250.00
	Supply and delivery at site wrought middle steel (galvanized) GI union confirming to IS 1239-II, 1991 with latest amendments if any (BWSSB SR 2023-24, Pg No -156, I No 11.12.6) For 50 mm dia							
		5	5			25.00		

Rate as BWSSB SR 2023-24	Total Qty.				25.00	No	267.00	6675.00
Supply and delivery at site wrought middle steel (galvanized) GI elbow confirming to IS 1239-II, 1991 with latest amendments if any for: (BWSSB SR 2023-24, Pg No - 156, I No 11.7.6) For 50 mm dia GI elbow	5	1			5.00			
Rate as BWSSB SR 2023-24	Total Qty.				5.00	No	267.00	1335.00
Supply and delivery at site wrought middle steel (galvanized) GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any (BWSSB SR 2023-24, Pg No -132, I No 11.14.6) For 50 mm dia GI hexagonal nipple	5	1			5.00			
Rate as BWSSB SR 2023-24	Total Qty.				5.00	No	213.00	1065.00
Providing wrought mild steel (galvanized) GI collar confirming to IS 1239-II, 1991 with latest amendments if any. For 50 mm dia GI collar: BWSSB SR 2023-24, Pg No -156, I No 11.6.6) For 50 mm dia GI collar:	5	1			5.00			
Rate as BWSSB SR 2023-24	Total Qty.				5.00	No	267.00	1335.00
Supplying and fixing 20" x 20" x 2.5" polished wood board made of not less than 15mm thick plank on both the sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., (PWD Ele SR 2023-24 ,Pg No-14 No -5.6.6)	Panel Board							
Rate as PWD Ele SR 2023-24	5	1			5.00	No	326.13	1631.00
Supplying and fixing miniature circuit breakers on existing MCB distribution board using necessary fixing materials and 'C' type curve indicator ON/OFF energy cross-3 with short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. 50-63 A SP (PWD Ele SR 2023-24 ,Pg No-13 No -5.8.6)	5	1			5.00			
Rate as PWD Ele SR 2023-24	Total Qty.				5.00	No	1102.00	5510.00
Supplying of TPST with rewirable porcelain channels in SM encloser made out of 14 SWG powder coated point of approved colour 32 amps (PWD Ele SR 2023-24 Pg No-10 No -5.5.2) 63A	5	1			5.00			
Rate as PWD Ele SR 2023-24	Total Qty.				5.00	No	4193.93	20970.00
Supplying and fixing LED type panel board indicating lamp with required colour suitable for 220 V AC 50 HZ 12/24 V DC (PWD Ele SR 2023-24 Pg No-19 No -5.38)	5	1			5.00			
Rate as PWD Ele SR 2023-24	Total Qty.				5.00	No	515.00	2575.00
Supply, installing,testing and commissioning COMMON control panel consisting of the following INCOMING:1 No set of Phase indicating lamps with SFU of suitable rating 1 No, Analog Ammeter, 1 No Analog Voltmeter 1ni with Phase selector switch, Isolating switch OUTGOING for Main Electrical Pump: 1 No. MCB 1 No. DOL of S/D Starter suitable for respective HP 1 No. Electrical Protection Like single Phase preventor, under voltage over Volage, under current over current & dry run protection suitable for the pump described above 1 no Indoor type S-D- Star Delta Starter, 6 to 15 HP pumps (BWSSB SR 2023-24, Pg No-155 No -13.23.3)	5	1			5.00			

Supplying and fixing single phase preventer using necessary wires over an existing panel board suitable for motor up to 20 HP capacities. (PWD Ele SR 2023-24 Pg No 14 No -5.3)	15900.00	5.00	No	15900.00	79500.00
Rate as PWD Ele SR 2023-24	5	1			
Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade multistrand copper conductor single core wire in open or concealed system of wiring as per IS 694:1990 & conforming to the attached GTP of group A. 4 sqmm (PWD Ele SR 2023-24 Pg No-5 No -2.3.4)	904.42	5.00	No	904.42	4522.00
Rate as PWD Ele SR 2023-24	5	10			
Supplying fixing and wiring heavy duty low voltage capacitors conforming to IS 2834 phase 400/440 volts grade, for power factor improvement of rotating machinery. (PWD Ele SR 2023-24 Pg No-19 I No -5.3.7)	63.00	50.00	Mtrs	63.00	3150.00
Rate as PWD Ele SR 2023-24	5	10			
Rod type of earthing using 40 mm Dia, 3 Mtr long MS rod as ground rod, in earth pit of 300 mm width and 3300 mm depth and using 50x6 mm flat welded to ground rod as terminal & connected to equipment ground terminal using PVC Al wire as specified (BESCOM - Part-III SR-2023-24, Pg No-23 I No -442)	480.00	50.00	No	480.00	24000.00
Rate as PWD Ele SR 2023-24	5	1			
Fabricating supplying and mounting MS box made out 14 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size cIA with necessary cable entry pipe with gland and box should be finished with 7 tanks treatment with powder coated paint and finally finished with ie., (Front & Back 1200X850X2=2040000mm)+(Sides 850X350X2=595000mm), (Top.Avg[$\frac{350+450}{2}=400$]400X1200X2=960000) =3595000mm	2172.00	5.00	No	2172.00	10860.00
Rate as PWD Ele SR 2023-24	5	35950			
1.1 kV, XLPE or Heat resistant PVC insulated, PVC extruded Inner Seath Armoured LTUG Cable as per IS-1554 (Part1) or IS-7098 Part-1, Armouring strip thickness and resistivity as per IS-3975 16 Sqmm, 4 Core, (11 GI Strips - 4 x 0.8 mm) (BESCOM - Part-III SR-2023-24, Pg No-13 I No -32.05)	0.50	179750.00	Sqcm	0.50	89875.00
Rate as PWD Ele SR 2023-24	5	11.4			
Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers. 63 amps (PWD Ele SR 2-23-24, Vol-6, page-14, It-5.7.3)	114.00	0.06			
Rate as PWD Ele SR 2023-24	141842.00	0.057	Km	141842.00	8085.00
Providing and fixing Brass full way valve gate with C.I. wheel of approved quality (screwed end) 50 mm nominal bore (PWD SR 2023-24, Vol-2 Pg No-117 No -13.4.5)	401.00	5.00	No	401.00	2005.00

	5			5.00			
PWD SR 2023-24	Total Qty.			5.00	Each	855.00	4275.00
	855.00						
Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge. External work (PWD SR 2023-24-22, P123 , It-13.33.6)50 mm nominal dia Pipes							
	5	126.2		631.00			
PWD SR 2023-24	Total Qty.			631.00	Each	721.00	454951.00
	721.00						
				Sub Total-1 :-		4122749.00	
Bescom Deposit Charges	5			5.00	Each	22800.00	114000.00
				Sub Total-2 :-		4236749.00	
				GST Charges 18%		762614.82	
				Miscellaneous:-		636.18	
				Grand TOTAL :-		5000000.00	

CERTIFICATE:-

- 1.The site has been inspected and the work is found to be necessary.
- 2.The estimate is based on KPWD SR 2023-24, BWSSB SR 2023-24 & PWD Ele SR 2023-24
- 3.The provisions were made in this estimate are necessary and adequate.
- 4.The area comes under the Bruhat Bengaluru Mahanagara Palike Limits.

K. M. Murali
Assistant Engineer
Ward No
B.B.M.P. Bengaluru

Shetty
Asst Executive Engineer
Shettyhalli Sub Division
B.B.M.P. Bengaluru

K. M. S. H. Srinivas
Executive Engineer
Dasarahalli Division
B.B.M.P. Bengaluru

ADMINISTRATIVELY SANCTIONED FOR

(Rupees 50,00,000.00/- (Fifty Lakhs only))

Under the Head of Account P-1802

Registered as no EE(D.D.)AS... 21... Subject to conditions contained in Enclosed Memo No. EE/D.D/AS/21/2024-25 Dt: 12/8/24

K. M. S. H. Srinivas
JE/AS
(DASARAHALLI) BBMP

Technically Sanctioned for Rs. 50.00 Lakhs

Rs. In words Rs. Fifty Lakhs only/-

Under P-1802 (2023-24)

Job Code No.

Registered as CE No. 08/2024-25 Subject to conditions contained in Enclosed Memo No. CE/22/TS/08/2024-25 Dt: 31/08/2024

AE/JE. TA CE(D)